

All in the Family?

A Primer on Genes and Vision Problems

Ah, the wonderful world of genetics. There's the classic "family nose," the disarming blue eyes, or the shock of thick, curly hair at birth. True, some things run in families. What about vision problems?

Some do. Others tend to be influenced by environmental or other factors, says J.P. Lowery, O.D., M.Ed. Dr. Lowery is chief of pediatrics at Pacific University College of Optometry in Forest Grove, Ore.

She says, "Nearsightedness and farsightedness have a strong genetic component, especially if a parent is very nearsighted or farsighted. If both parents are nearsighted or farsighted, there's a good chance their child will be the same."

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But vision isn't all in the genes, Dr. Lowery continues. "There are some significant environmental influences, such as near-point work like reading, that are associated with nearsightedness, especially when it develops later in the teens and 20s." Some studies suggest that students who spend a lot of time reading develop nearsightedness more quickly than others do.

Some genetically-linked eye problems:

- Nearsightedness
- Farsightedness
- Color vision deficiency (a.k.a., color blindness)
- Retinitis pigmentosa, a rare progressive decline of the retina

Some eye problems that have mixed causes:

- Glaucoma (fluid build-up in the eye that damages the optic nerve)
- Age-related macular degeneration (progressive decline of part of the retina)
- Amblyopia ("lazy eye")
- Strabismus (when eyes are aligned in different directions)

Amblyopia and strabismus usually show up in very early childhood, and there's great success treating them with patches, special eyewear, vision training and/or surgery.

If you're curious about your family's vision history and how it might impact your children, see an eye doctor. Dr. Lowery says, "As a pediatric eye specialist, I can tell you that many of the serious vision problems that young children develop could be prevented if all parents brought their babies in for routine eye exams at six months." You might be surprised how easy an eye exam on an infant can be, and the right doctor with child-friendly tools can get it done in a snap.

Dr. Lowery recommends additional exams around three years old, then just before kindergarten. Yearly eye exams should continue for life.